



Geo-location Privacy, National Security and Regulatory Issues Associated with Geospatial Information

International Workshop
on Legal and Policy Frameworks
for Geospatial Information



Objectives

- Understand current geolocation privacy issues associated with geospatial information.
- Understand homeland/national security issues associated with geospatial information.

PERCEPTIONS OF PRIVACY IN PUBLIC ARE CHANGING...

St. Peter's Square - 2005



Luca Bruno/AP

...CREATING A LOCATION PRIVACY PARADOX

St. Peter's Square - 2013



Michael Sohn/AP

White House Big Data report

- White House released two “Big Data” reports in May 2014.
- President's Council of Advisors on Science and Technology (PCAST) report:
 - Describes various types of geospatial technologies that collect born-analog data that contain “personal information”
 - Many of these relate to geospatial information, including:
 - video from . . . overhead drones
 - imaging infrared video
 - synthetic aperture radar (SAR)
 - LiDAR,
 - “precise geolocation in imagery from satellites and drones”

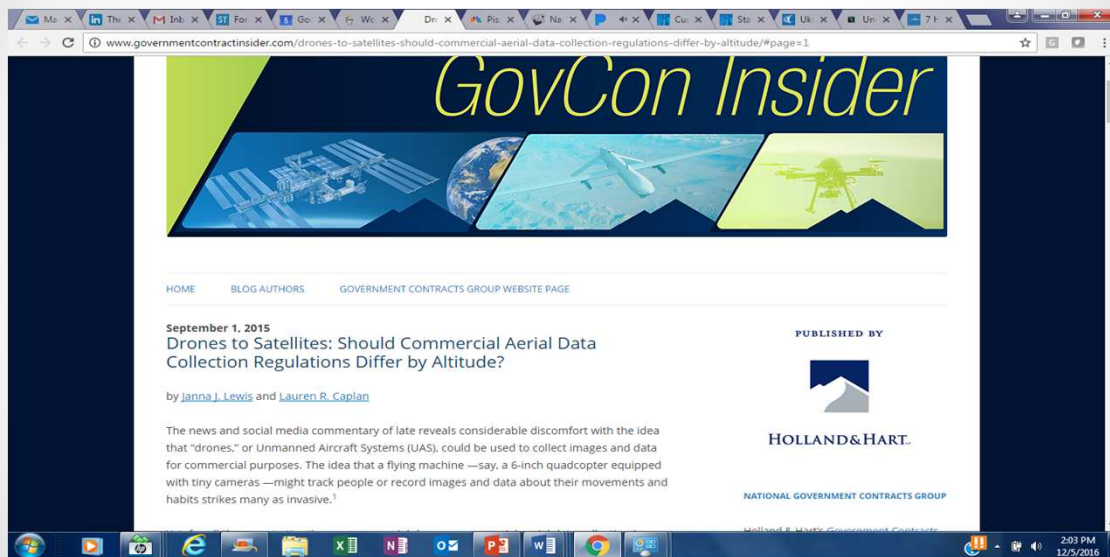
Examples of Evolving Legal Framework Regarding Location

- E.U. General Data Protection Regulation (GDPR) will protect location data.
- U.S. Federal Trade Commission initiates enforcement actions against companies collecting geolocation information without consent.
- Legislation in Australia that would criminalize re-identifying an individual from de-identified data sets.
- Government agencies publishing industry-specific laws/guidelines regarding data protection.
- Law enforcements use of “stingray” technology and mobile phone tracking being challenged in courts and media.

Raising Concerns Over Traditional Geospatial Technologies



... Could Be Significant



Privacy/Data Protection Constructs

- Privacy laws and regulations around the world are based upon Fair Information Practice Principles (FIPPs)
- Elements of FIPPs include:
 - **“identified” and “identifiable”**
 - Notice and transparency
 - Consent and use limitation
 - Access and participation
 - Integrity and security
 - Enforcement and accountability
- Applying FIPPS to geoinformation is hard

• 9

Challenges: Unique Aspects of Geoinformation

- ▶ Much more difficult to define
 - Compared to other protected information - social security number, health records, credit information
- ▶ Temporal component
 - Present vs. historical?
- ▶ Cultural, gender, age, religious, social components
- ▶ **Location information is collected in many more ways**
- ▶ Privacy challenges are much more varied.
- ▶ We regularly provide our location to others.

• 10

Impact: Geospatial Ecosystem

- Government, industry and citizens are both providers and users of geoinformation.
- They all collect, use and share geoinformation, often simultaneously.
- Government relies upon private sector and increasingly the crowd to provide critical geoinformation.
- **Laws, policies, etc. that impact one segment will have a ripple effect throughout the entire geospatial ecosystem .**

• 11

Homeland/National Security Issues

- Many geospatial technologies were developed for military/intelligence purposes.
- As a result, technologies are considered “dual-purpose”.
 - Data can be used for both good and bad.
- Military/Intelligence agencies have a big say on potential risks.
 - Governments often give deference
- Geospatial community has to develop mechanism to balance benefits of geospatial with perceived risks.
 - Guidelines for Providing Appropriate Access to Geospatial Data in Response to Security Concerns

• 12

Discussion

- How concerned is your organization with geolocation privacy issues?
- What steps are you taking to protect sensitive (privacy, national security) geospatial information?